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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/659,139	09/10/2003	Christopher W. McNutt	64671-0480	3033
20480	7590	05/10/2005	EXAMINER	
STEVEN L. NICHOLS RADER, FISHMAN & GRAVER PLLC 10653 S. RIVER FRONT PARKWAY SUITE 150 SOUTH JORDAN, UT 84095			NGUYEN, KHIEM M	
			ART UNIT	PAPER NUMBER
			2839	

DATE MAILED: 05/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/659,139	Applicant(s) MCNUTT ET AL.	
	Examiner Khiem Nguyen	Art Unit 2839	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 February 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2,4,11 and 12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 4 is/are allowed.
- 6) ☒ Claim(s) 2,11 and 12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 2 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Admitted Prior Art (APA) or EP'017 in view of Yang et al. and Hawtof et al.

The APA or EP'017 disclose a buffer tube for use in a fiber optic cable which comprise a blend or an alloy of polymer materials which are not of polypropylene and polyphenylene oxide as being recited in the claims of the present invention.

However, the use of a blend or alloys of different polymers as materials for buffer tubes are old and well known. Yang et al. Discloses that it is known to made a buffer comprising an alloy of polypropylene-polyethylene copolymer. Hawtof et al. discloses it is known to use polyphenylene oxide as coating for optic Fibers.

Therefore, it would have been obvious for one of ordinary skilled in the art to construct or provide the buffer tubes of the APA or EP'017 out of an alloy of polypropylene and polyphenylene oxide in view of the teachings of Yang et al. and Hawtof et al. Yang et al. provide the suggestions or motivation for using an

alloy of different polymers as materials for buffer tube construction to provide better mechanical and electrical properties. Also, it is noted that the preambles of claims 2 and 11 only set forth "a buffer tube for use in a fiber optic cable" with no optical fiber structure being recited; the claims had been interpreted for use in any buffer tube construction.

Regarding the use of glass fiber and/or the use of antioxidant processing aid in the alloy of polymers, Yang already disclosed such features for his copolymer (see line 2, column 25-35).

3. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over the references as applied to claims 2 or 11 above, and further in view of Davis et al.

The APA or EP'017 discloses a buffer tube for use in a fiber optic cable.

It is noted that the flexural modulus in the APA or EP'017 is not stated to be in the range from about 180 to about 370 kpsi at room temperature.

However, it is submitted that to form buffer tube with the said claimed flexural modulus range is deemed obvious design choice through routine experimentation, optimum ranges and use of proffered material for achieving the desired results, In re Aller, 105 USPQ 233 CCPA 1955.

Davis, et al. also discloses that it is well known to form buffer tube 12 with a flexural modulus ranging from 60 to about 200 kpsi.

Therefore, it would have been obvious for one of ordinary skill in the art at the time of the invention to form the buffer tube of the APA or EP'107 with the claimed flexural modulus range.

The provision of a buffer tube having a wide range of flexural modulus would seem advantageous in providing a cable structure capable of withstanding high axial loads while allowing for more effective installation of the fiber optic cable.

Allowable Subject Matter

4. Claim 4 is allowed.

Response to Arguments

5. Applicant's arguments filed with the amendment of 2/7/05 have been fully considered but they are not persuasive. Regarding applicant's arguments that there is motivation for combining Hawtof et al. which relates "optical fibers which include a data storage medium" having polyphenylene oxide and that of Yang et al. which discloses polypropylene-polyethylene (PP-PE) buffer tubes with that of the buffer tubes of the APA or EO'017.

First, it is submitted that as mentioned in the above office action rejection, the preambles of claims 2 and 11-12 only set forth "a buffer tube for use in a fiber optic cable" with no optical fiber structure being recited, the claims had been interpreted for use in any buffer tube construction. Second, it is submitted that since Yang et al. and Hawtof et al. are both related to fiber optic applications, they are considered to be analogous art to one of ordinary skill in the art. Furthermore, since the scope of the rejected claims are broad, the teachings of Yang et al. and Hawtof et al. as a whole would suggest one of ordinary skill in the art of using buffer tubes made of polyphenylene oxide which only relates to a choice of material selection.

Conclusion

6. THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Khiem Nguyen whose telephone number is 571 272-2096. The examiner can normally be reached on Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, TC Patel can be reached on 571 272-2098. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2839

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Khiem Nguyen
Primary Examiner
Art Unit 2839